

Appl. No. 10/707,646  
Amdt. dated August 16, 2006  
Reply to Office action of May 30, 2006

### Remarks/Arguments

#### **1. Rejection of claims 1-18:**

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Friend et al. (US 6,429,601) hereinafter Friend. Reasons of rejection are cited on page 2-6 of above-mentioned Office Action.

#### **Response:**

Examiner notes that Friend has disclosed a pixel structure of an organic light-emitting display device. As shown in Fig. 3, the light-emitting display device has four light-emitting areas 19a-d, a common line 12 a scan line 10 that are shared by the light-emitting areas 19a-d, and a plurality of control units 31. *Each light-emitting area has a switching transistor 13, a storage capacitor 14 and a current transistor 15 as one-to-one mapping relation, and is controlled by corresponding control unit 31 through a signal line 11.*

Applicant amends several claims of the present application to emphasize the characteristics of the present application. Currently amended claims 1 and 11 are repeated as follows:

1. (Currently amended) A pixel structure of an active matrix display device, the active matrix display device having a source of first potential and a source of second potential, the pixel structure comprising:

a plurality of active-type light emitting devices connected in parallel with each other, each of the active-type light emitting devices being electrically connected between the source of first potential and the source of second potential;

a first active device having a first end electrically connected to a scanning line, a second end electrically connected to a data line, and a third end electrically connected to a switching end of each of the active-type light emitting devices, wherein the active-type light emitting devices being electrically connected to the first active device as many-to-one mapping relation; and

Appl. No. 10/707,646  
Amdt. dated August 16, 2006  
Reply to Office action of May 30, 2006

a storage capacitor having a first electrode electrically connected to the third end of the first active device and the switching end of the active-type light emitting devices, and a second electrode electrically connected to the source of first potential end.

- 5 11. (Currently amended) An active matrix display device comprising:  
a plurality of scanning lines;  
a plurality of data lines;  
a plurality of pixels, **each of the pixels electrically connected to one corresponding scanning line and one corresponding data line**, each of the pixels comprising:
- 10 a first active device having a first end electrically connected to the corresponding scanning line, a second end electrically connected to the corresponding data line, and a third end;  
a plurality of active-type light emitting devices electrically connected in parallel with each other, each of the active-type light emitting devices being connected between
- 15 a source of first potential and a source of second potential, **wherein the active-type light emitting devices being electrically connected to the first active device as many-to-one mapping relation**, each of the active-type light emitting devices comprising:
- 20 a light emitting device electrically connected to the source of second potential;  
and  
a second active device having a fourth end electrically connected to the third end, a fifth end electrically connected to the source of first potential, and a sixth end electrically connected to the light emitting device; and
- 25 a storage capacitor having a first electrode electrically connected to the third end of the first active device and the fourth end of the active-type light emitting devices, and a second electrode electrically connected to the source of first potential end.

According to the cited reference, Friend never expects the shortage incident of their

Appl. No. 10/707,646  
Amdt. dated August 16, 2006  
Reply to Office action of May 30, 2006

light-emitting area. *If a shortage defect occurs, the brightness of the light-emitting area of Friend will be reduced.* In the present application, applicant claims a pixel structure, in which a plurality of active-type light emitting devices are connected in parallel with each other, and the active-type light emitting devices are connected to the first active devices as many-to-one mapping relation, to resolve shortage defects resulting from process error during device fabrication. When an electrical shortage occurs in one of the active-type light emitting devices of a pixel, the pixel still can display an image via other active-type light emitting devices of the pixel. Moreover, it is unnecessary to utilize laser beams to repair defects, so that the production time can be saved and the yield can be effectively improved.

In addition, Friend discloses a pixel structure comprises at least two independent light-emitting areas, with a switch means (a transistor and a capacitor) associated with each one of the light-emitting areas for independently switching power to that light-emitting area under the control of the drive means. As shown in Fig.5, *each pixel requires a plurality of switching transistors 13a-d, a plurality of control units 31, and a plurality of signal lines 11a-d to control their corresponding light-emitting areas.* However, **each pixel structure of the present application only utilizes one corresponding scan line and one corresponding data line and one first active transistor to control several active-type light emitting devices.** Compared to Friend, the present application omits the control units 31 and the switching transistor 13b-d, and the signal lines 11b-d. The pixel structure of the present application requires fewer components and has better performance in maintaining brightness.

Thus, claims 11 and 1 should be allowed over Friend. Claims 2-10 are dependent on claim 1, and claims 12-18 are dependent on claim 11, respectively, and should be allowable if claims 1 and 11 are found allowable. Reconsideration of claim 1-18 is respectfully requested.

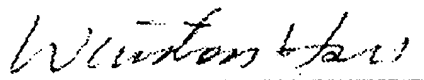
Applicant respectfully requests that a timely Notice of Allowance be issued in this

Appl. No. 10/707,646  
Amdt. dated August 16, 2006  
Reply to Office action of May 30, 2006

case.

Sincerely yours,

5



Date: 08.16.2006

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

10

e-mail : winstonhsu@naipo.com

Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)

15